

### **Claims:**

1. A method for identifying articles comprising the steps of:  
labeling the articles with a light polarizing material, the light polarizing material forming a machine readable indicia including a code for automated identification of the article, the light polarizing material being applied over a second material, the second material reflecting light through the light polarizing material to create a image from which the machine readable indicia may be reproduced by filtering the reflected light to produce a plurality of images and comparing the images.
2. The method of claim 1 further comprising utilizing a data base including a plurality of codes to apply different machine readable indicia to different ones of the plurality of articles, the machine readable indicia representing one of the plurality of codes for identifying particular articles.
3. The method of claim 1 wherein a machine readable indicia is formed on a plurality of labels from a light polarizing material applied over a reflective material, the reflective material reflecting light through the light polarizing material that is filterable to produce a plurality of images from which the machine readable indicia may be reproduced by comparing the images and applying the labels to articles.
4. The method of claim 1 further comprising exposing the machine readable indicia to a source of light.
5. The method of claim 4 further comprising dividing light reflected from the indicia into a plurality of beams.
6. The method of claim 5 further comprising filtering each of a plurality of the beams through a polarized filter, each of the filters being offset from each of the other filters by a predetermined angle.

7. The method of claim 6 further comprising generating an electronic image from each of the filtered beams with a detector.

8. The method of claim 7 further comparing at least one of the electronic images to at least one other of the electronic images to reproduce an image corresponding to the indicia.

9. The method of claim 1 wherein the machine readable indicia comprises a bar code.

10. The method of claim 1 wherein the light polarizing material and the reflective material are transparent to visible light.

PRINTED IN U.S.A. 00-00000000

11. An article identification label comprising:  
a machine readable indicia comprising a light polarizing material; and  
a reflective layer for reflecting light through the indicia, the reflective layer  
comprising a material that is transparent to visible light.

12. The article identification label of 11 where in the machine readable indicia  
further comprises an image imprinted on the label with a light polarizing material.

13. The article identification label of claim 11 further comprising a substrate and  
wherein the substrate comprises an oriented film positioned between the indicia and the  
reflective layer.

14. The article identification label of claim 13 wherein the substrate is transparent  
to visible light.

15. The article identification label of claim of claim 14 wherein the machine  
readable indicia is transparent to visible light.

16. The article identification label of claim 11 wherein the article is a mail piece  
and the indicia is a bar code including destination information for the mail piece.

17. A labeling system comprising:

a plurality of labels including a machine readable indicia representing a unique code, each of the labels further comprising a reflective layer and a substrate, and wherein the machine readable indicia comprises a light polarizing material;

5 a labeler for applying the labels to each of a plurality of articles whereby articles are uniquely identified with one of the codes; and

a computer including a database representing the plurality of articles, and wherein the unique code for each of the labeled articles is stored.

18. The system of claim 17 further comprising a media applicator for applying a light polarizing material in a machine readable format to the substrate.

19. The system of claim 18 wherein the media applicator is a printer and the light polarizing material is a dichroic ink.

20. An automated article sorting system comprising:

a plurality of polarized lenses for filtering polarized light reflected from a label including machine readable indicia comprising a polarized material on the surface of an article conveyed past the lenses;

5 a detector associated with at least one of the lenses for detecting reflected light transmitted through one of the polarized lenses and generating a signal in response thereto;

a computer receiving signals from the detectors, the computer comparing the signals from the detectors and detecting a pattern corresponding to the indicia, the computer

10 generating a sorting signal corresponding to the indicia; and

a sorter, the sorter sorting the articles based upon the sorting signal received from the computer.

21. The sorting system of claim 20 wherein each detector is a charged coupled array.

22. The sorting system of claim 20 wherein each charged coupled array generates a digitalized electronic image from reflected light passing through one of the filters.

23. The sorting system of claim 22 wherein the computer compares at least one of the digitalized images to at least one other different digitalized image to reproduce the machine readable indicia.

24. The sorting system of claim 23 where the computer compares the digitalized images by subtracting pixels generated by the charged coupled arrays.